I claim as my invention:

1. A method of making nanoparticles of a substantially water insoluble material comprising:

(a) preparing an emulsion system, having a dispersed phase and a continuous phase; the dispersed phase comprises globules containing said material within the continuous phase in the presence of a surfactant;

(b) diluting the emulsion by addition of a liquid that is miscible with the dispersed phase and the continuous phase, in an amount effective to dissociate said emulsion, thereby producing a uniform liquid phase in which nanoparticles of said material are suspended, said nanoparticles having an average particle size equal to or less than the globule size of said dispersed phase, and, optionally,

(c) separating said nanoparticles from said uniform liquid phase.

2. The method as claimed in claim 1 wherein the material is a therapeutic or diagnostic agent.

3. The method as claimed in claim 1, wherein the emulsion is diluted with the liquid that comprises the continuous phase.

4. The method as claimed in claim 1, wherein said nanoparticles have an average particle size less than about 200 nanometers.

5. The method as claimed in claim 1, wherein said nanoparticles have an average particle size less than about 50 nanometers.

6. The method as claimed in claim 5, wherein said therapeutic or diagnostic agent is substantially insoluble in water, and said emulsion is an oil-in-water emulsion or a water-in-oil emulsion.

7. The method as claimed in claim 1, wherein separation of said nanoparticles is effected by centrifugation.

8. The method as claimed in claim 1, wherein separation of said nanoparticles is effected by filtration.

9. The method as claimed in claim 1, wherein separation of said nanoparticles is effected by dialysis.

10. The method as claimed in claim 1, wherein the dispersed phase — continuous phase which constitutes said emulsion system (dispersed phase medium — continuous phase medium) is selected from the group of: triethyl citrate –water, dimethylsulfixide – triglyceryl cabroate, and ethyl citrate-water.

11. The method as claimed in claim 1, wherein said therapeutic agent is selected from the group consisting of water insoluble anticancer drugs, antiviral drugs, immune-modulating agents, steroidal and non-steroidal anti-inflammatory agents, cardiovascular drugs and mixtures thereof.

12. The method as claimed in claim 10 wherein said therapeutic agent is selected from the group consisting of carmustine, methotrexate, carboplatin, azidothymidine, didanosine, dithrothritol, saquinavir, indinavir, retinovir, cyclosporine, hydrocortisone, prednisolone, ketoprofen, celecoxib, ibuprofen, methotrexate and mixtures thereof.

13. A substantially pure therapeutic or diagnostic agent, in the form of nanoparticles having an average particle size less than about 200 nanometers, produced by the method of claim 1.

14. The therapeutic agent, as claimed in claim 13, wherein the therapeutic agent is selected from the group of progesterone and testosterone.

15. The therapeutic agent, as claimed in claim 13, which also comprises a pharmaceutically acceptable carrier system.

16. The therapeutic agent as claimed in claim 12 which also comprises pharmaceutically acceptable adjuvants.

17. A diagnostic composition comprising the diagnostic agent nanoparticles, of claim 13, and a pharmaceutically acceptable carrier system.

18. A diagnostic composition comprising the diagnostic agent nanoparticles of claim 12 and pharmaceutically acceptable adjuvants.

19. A method of administering a therapeutic or diagnostic agent to targeted tissues or cells, comprising introducing into the targeted tissues or cells the agent of claim 13 in order to obtain selective accumulation of the nanoparticles of a therapeutic or diagnostic agent in the targeted site.

20. The method as claimed in claim 19 comprising the further step of injecting the therapeutic agent into targeted tissue or cells so that the nanoparticles of the therapeutic agent are slowly solubilized for sustained release into surrounding tissues or into plasma for circulation to other organs and tissues.

21. A method wherein the nanoparticles of therapeutic or diagnostic agent of claim 13 are administered orally.

22. The method as claimed in claim 19 wherein nanoparticles of the therapeutic or diagnostic agent are administered in the form of a suspension.

23. A method wherein the nanoparticles of the therapeutic or diagnostic agent of claim 13 are administered by injection into selected sites in the human body.

24. A method wherein the nanoparticles of the therapeutic or diagnostic agent of claim 13 are administered by surgical techniques.

25. A method wherein the nanoparticles of the therapeutic or diagnostic agent of claim 13 are applied topically.